Last Name

First Name

Exhibit 1

1. Inventor: Montgomery

INTEL INVENTION DISCLOSURE ATTORNEY-CLIENT PRIVILEGED COMMUNICATION

PLATFORMS/EPT/APT

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It is important to provide accurate and detailed information on this form. The information will be used to evaluate your invention for possible filing as a patent application. When completed and signed, please return this form to the Legal Department at JF3-147. If you have any questions, please call 264-0444.

Richard

tor E-Mail Address: _richardx.montgomery@intel.com Address: _12216 114 th Puyallup State WA Zip 98374 Country USA Porate Level Group (e.g. iABG, NCG, CEG) _TRL		M/\$: <u>DP3-315</u>	Fax# 253	.371.5502	
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Middle Initial Middle	Inventor: Montgomery	Stephen			W
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visor* Ven Holalkere WWID Phone 253-371-4730 M/S: DP3-315	Home Address: 1821 6TH AVE. W /	APT 7: SEATTLE, WA 98	<u>8119</u>		
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(p)	Has your inve	ntion been use	d/sold or planned to be used/sold by Intel or others?
	NO: <u>X</u>	YES:	DATE WAS OR WILL BE SOLD:
(c)	Does this inve	ntion relate to t scification?	echnology that is or will be covered by a SIG (special interest group)/standard/
	NQ:X	YES:	Name of SIG/Standard/Specification:
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	nis invention relat	ted to any other i	nvention disclosure that you have recently submitted? If so, please give the title and

PLEASE READ AND FOLLOW THE DIRECTIONS ON HOW TO WRITE A DESCRIPTION OF YOUR INVENTION

Please attach a description of the invention to this form, DATED AND SIGNED BY AT LEAST ONE PERSON WHO IS NOT A NAMED INVENTOR, and include the following information:

1. Describe in detail what the components of the invention are and how the invention works.

The components of an active liquid cooling system are a pump, heat exchanger, cold plate and tubing to connect it together. Cold plates are used in liquid cooling systems to interface with high density processors to remove heat. This invention implements impinged flow onto the cold plate base with radial fins to increase heat transfer. The flow impinges on the center of the cold plate (above the die) and radiates to the perimeter through the fins.

Describe advantage(s) of your invention over what is done now.

Currently, fluid flows along parallel channels inside the cold plates. The advantage of this design is that the flow impinges on the hot spot created by a small die and then flows radially outward. In this fashion, you get heat transfer from 2 paths.

- 3. YOU MUST include at least one figure illustrating the invention.

 If the invention relates to software, include a flowchart
 or pseudo-code representation of the algorithm.
- Value of your invention to Intel (how will it be used?).

As heat density increases in Intel processors, flquid cooling inevitably will become a more common solution. Overall, fiquid cooling will occupy a smaller footprint than an aircooled system with commensurate performance. This makes it desirable for high density applications like 1U servers. Gaining intellectual property in the unique design of cold plates will increase Intel's leverage in this market segment.

5. Explain how your invention is novel. If the technology itself is not new, explain what makes it different.

This invention is novel because of the radial geometry fins and the impinging flow.

- Identify the closest or most pertinent prior art that you are aware of. 6. Not aware of a pertinent art.
- Who is likely to want to use this invention or infringe the patent 7. if one is obtained and how would infringement be detected?

ODMs, OEMs and hardware developers of thermal solutions.

THAVE YOUR SUPERVISOR READ, DATE AND SIGN COMPLETED FORM

DATE:	SUPERVISOR;	
BY THIS SIGNING, I (SUP	RVISOR) ACKNOWLEDGE THAT I HAVE READ AND UNDERSTAND THIS	

DISCLOSURE, AND RECOMMEND THAT THE HONORARIUM BE PAID